APPENDIX A

Clean copy of the claims

42. (Currently Amended) A method of producing energy, comprising:

providing a sealed first chamber;

providing a sealed second chamber;

providing a semi-permeable barrier separating the first chamber from the second chamber;

filling the first chamber with a solvent;

filling the second chamber with a solute solution comprising a solute and solvent;

providing communication between the solvent solution and solute solution to cause the solvent to flow from the first chamber through the semi-permeable barrier into the second chamber,

utilizing the semi-permeable barrier to restrict solute from flowing into the first chamber while allowing the solvent to flow into the second chamber ;as the solvent flows from the first chamber into the second chamber a void is created in the first chamber such that a vacuum develops in the first chamber and increases the pressure in the second chamber;

periodically applying and removing the increased pressure to drive a member which produces a movement from which work can be extracted;

removing a portion of the solute solution from the second chamber and transferring the removed portion of the solute solution into a third chamber;

applying energy to the removed portion of the solute solution in the third chamber thereby vaporizing the solvent contained in the removed portion of the solute solution and thereby separating the solute in the removed portion of the solute solution; and

recycling the separated solute to the second chamber .

47. (Previously Presented) The method of claim 42, further comprising condensing the vaporized solvent to liquid solvent.

48. (Previously Presented) The method of claim 47, further comprising returning the liquid solvent to the first chamber.

50. (Currently Amended) A method for producing a linear displacement of an object, comprising:

providing a sealed first chamber;

providing a sealed second chamber;

providing a semi-permeable barrier separating the first chamber from the second chamber;

filling the first chamber with a solvent;

filling the second chamber with a solute solution;

providing communication between the solvent and the solute solution to cause the solvent to flow from the first chamber through the semi-permeable barrier into the second chamber ;

utilizing the semi-permeable barrier to restrict the solute from entering the first chamber while allowing solvent molecules to flow into the second chamber,

as the solvent flows from the first chamber into the second chamber a void is created in the first chamber such that a vacuum develops in the first chamber and an increase of the pressure in the second chamber;

periodically applying and removing the increased pressure to drive a member which produces a substantial linear displacement of the object;

removing a portion of the solute solution from the second chamber and transferring the portion of the solute solution to a third chamber;

applying energy to the removed portion of the solute solution in the third chamber thereby vaporizing the solvent contained in the removed portion of the solute solution thereby separating the solute in the removed portion of the solute solution; and

recycling the separated solute to the second chamber .

51. (Previously Presented) The method of claim 50, further comprising pressurizing the first chamber.

52. (Previously Presented) The method of claim 51. wherein pressurizing the solvent chamber comprises using an external pressure pump in communication with the first chamber.

57. (Amended) A method for producing a vacuum which is utilized to lower the vapor pressure of a mixture of solvent and solute solution to aid in crystallization of the solute upon the application of an external energy source, comprising:

providing a sealed first chamber;

providing a sealed second chamber;

providing a semi-permeable barrier separating the first chamber from the second chamber;

filling the first chamber with a solvent;

filling the second chamber with a solute solution;

providing fluid communication between the solvent and the solute solution to cause the solvent to flow from the first chamber to through the semi-permeable barrier into the second chamber;

utilizing the semi-permeable barrier to restrict the solute solution from entering the first chamber while allowing solvent to flow from the first chamber into the second chamber as the solvent flows from the first chamber into the second chamber a void is created in the first chamber thereby forming the vacuum to aid in the crystallization of the solute.

58. (Amended) The method of claim 57, further comprising exhausting the solute solution from the second chamber.

59. (Amended) The method of claim 57, further comprising controlling the flow of solvent from the first chamber.

67. (Currently Amended) The method of claim 42, wherein the application of energy drives the applying vacuum.

68. (Currently Amended) The method of claim 42, wherein the application of energy heats the solute solution to separate solute molecules from solvent molecules.

70. (Currently Amended) The method of claim 50, wherein the application of energy drives the applying vacuum.

71. (Currently Amended) The method of claim 50, wherein the application of energy heats the solute solution to separate solute molecules from solvent molecules